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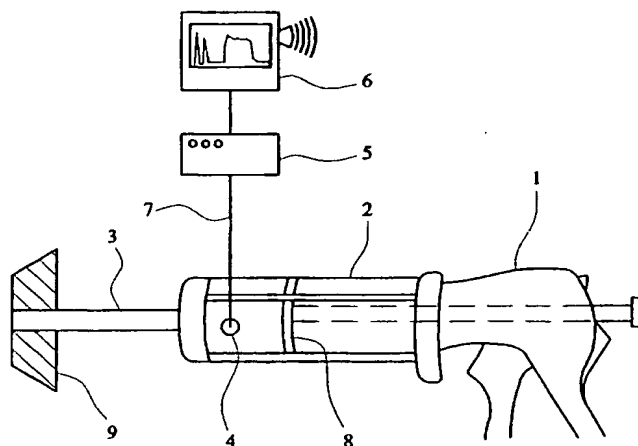
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(54) Title: AN INSTRUMENT FOR PREPARING A BONE CEMENT MATERIAL



(57) **Abstract:** An instrument (1) for deploying a bone cement material in a bone cavity, the material being formed from two reactive components which, when mixed, react to form a useable cement comprises a chamber (2) in which the components of the material can be mixed, and a mixing tool which extends into the chamber (2), and which can be manipulated from outside the chamber (2), to cause the components of the material to mix. Material can be discharged from the chamber (2) after it has mixed through an outlet (3). A piston (8), which can be moved through the chamber (2) to apply positive pressure to mixed material within the chamber (2), can displace the mixed material from the chamber (2) through the outlet (3) into the bone cavity (32, 54). A sealing component (9, 20) fits over the bone cavity (32, 54) to seal the cavity (32, 54) around the chamber outlet (3) and to minimise leakage of bone cement that has injected into the cavity (32, 54), and a sensor (23, 63) is provided for measuring the pressure to which the bone cement is subjected during displacement from the chamber (2). Preferably, the sensor (23, 63) is provided in the sealing component (9, 20).

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